

Radiological Health Program

X-RAY BULLETIN

Re-issued December 1, 2004

Revised Policy on Exposure Control Location and Operator Protection Effective May 1, 1999

The Virginia Department of Health has addressed the issue of X-ray control switch location in their Radiation Protection Regulations, since 1988. The intent of this regulation was to keep operator exposure levels as low as reasonably achievable (ALARA). Although strict implementation of this regulation ensures operator safety; in many cases it caused unnecessary expense to the registrant with marginal safety benefits to the operator. Therefore, in keeping with the regulatory philosophy of optimizing radiation safety without inflicting unreasonable expense to registrants, the Radiological Health Program issued its first regulatory guidance concerning this issue in April of 1991.

The Program has since obtained further data from both public and private inspectors which requires additional regulatory guidance. These changes are itemized below and reflect the anticipated formal changes to the regulations. The flow chart on the reverse side of this page may also be useful to determine your needs.

1. All X-ray machines used in the healing arts (other than mobile or portable units or bone densitometers): If the exposure control is permanently mounted behind a protected barrier so that the operator can remain completely behind the barrier during the entire exposure, then dosimetry is not required unless it is likely the person would receive a dose in excess of 10% of the annual limit. For X-ray machines meeting this requirement and used in the practice of Dentistry, Podiatry, or Veterinary Science, we have concluded that no dosimetry is required.
2. For Dental X-ray machines that do not meet the standard set forth in item 1, but have the exposure control permanently located at least 9 feet for the tube housing assembly in its exposure position, no dosimetry is required.
3. For Dental X-ray machines installed prior to May 1, 1999 that do not meet the standard set forth in item 1 or 2, but have a stretch cord that will allow the operator to be at least 9 feet from the tube housing assembly in its exposure position, dosimetry is required.
4. For Podiatry or Veterinary X-ray machines that do not meet the standard set forth in item 1, but have a stretch cord that will allow the operator to be at least 9 feet from the tube housing assembly in its exposure position, dosimetry is required.

Exposure control location & operator protection (other than portable units or bone densitometers)

Is exposure control permanently mounted behind a protected barrier - so that the operator can remain completely behind that barrier during the entire exposure?

No

Yes

Is this machine used in Dentistry?

OK - Dosimetry not required unless it is likely the expected dose is greater than 10% of the annual limit (12VAC5-481-760)

No

Yes

Is this a Podiatry or Veterinary unit?

Is exposure control permanently located at least 9 feet from the tube housing assembly?

No

Yes

Violation!

Are means provided to allow the operator to be at least 9 feet from the tube during exposures?
(i.e. - stretch cords)

No

Yes

OK

Was this X-ray installed prior to 5/1/99?

No

Yes

Violation!

Dosimetry required for all operators or holders of patients

No

Yes

Violation!

Are means provided to allow the operator to be at least 9 feet from the tube during exposures?
(i.e. - stretch cords)

No

Yes

Violation!

Dosimetry required for all operators or holders of patients